

# MARSHALL STAR

Serving the Marshall Space Flight Center Community

Oct. 8, 2009

## LCROSS to impact moon tomorrow



Artist rendering of LCROSS impacting the moon

NASA's Lunar Crater Observation and Sensing Satellite mission – known as LCROSS – will impact the moon at approximately 6:30 a.m. CDT Oct. 9. The mission is seeking answers to whether water exists in the permanently shadowed craters of the moon.

LCROSS will seek to confirm the presence or absence of water ice at the point of impact in the Cabeus crater near the moon's south pole.

LCROSS is one of the path-finding robotic missions to the moon, which is managed by the Lunar Precursor Robotics Program at the Marshall Space Flight Center. The program's precursor missions will help enable sustained human exploration of our solar system.

"This will be a big milestone for space exploration," said Todd May, manager of Marshall's Lunar Precursor Robotic Program. "LCROSS could prove that water does exist deeper beneath the moon's surface, presenting a valuable resource in the human quest

*See Impact on page 4*

### Center to hold CFC rally Oct. 27

## Marshall 'off and running' on Combined Federal Campaign

*By Rick Smith*

The Marshall Space Flight Center and its partners in the 2009 Tennessee Valley Combined Federal Campaign are off to a great start in this year's drive, its organizers say – thanks to volunteers who helped turn the Salvation Army's annual "Angel Tree" program signup into an unqualified success.

At press time, Marshall volunteers and others had helped sign up 1,244 needy families and 143 seniors for the program. Through Angel Tree, donors supply toys, clothes and other necessities to needy children and the elderly during the holiday season.

"We're off and running!" said Irene Taylor, Marshall's CFC executive chairperson and manager of the Mission System Assurance & Technical Support Department in the Safety &

*See CFC on page 5*

## STS-128 crew to visit Marshall



Space shuttle Discovery astronauts who flew the recent space shuttle STS-128 mission will visit the Marshall Space Flight Center on Oct. 13. They will present highlights of their 14-day mission to the International Space Station in Morris Auditorium, Building 4200, at 9 a.m. Discovery launched Aug. 28. Crew members seated from left are Kevin Ford, pilot, and Rick Sturckow, commander; and standing from left, mission specialists Jose Hernandez, John "Danny" Olivas, Nicole Scott, European Space Agency astronaut Christer Fuglesang and Patrick Forrester.

# Marshall presents Industry & Advocates Awards to team members, companies for their 'passion'

By Jessica Wallace

The Marshall Space Flight Center honored NASA prime contractors, subcontractors and companies for their exceptional work in support of NASA's mission at the annual Industry & Advocates Award Ceremony on Sept. 24.

Seven companies and seven team members, all participants in NASA's Office of Small Business Programs, were selected for their accomplishments through increased use of technology, reduction of costs or creation of innovative methodologies and processes.

The awards were presented in four categories: Marshall Individual Award, Prime and Subcontractor of the Year Award, Prime Contractor Subcontractor Excellence Award and Small Business Advocacy Award.

"The key to successful small business program implementation is advocacy driven by passion," said David Brock, the small business specialist in the Marshall Center's Office of Procurement. "This year's award recipients, both individual and industry, possess this unique quality. Simply put, passion is believing that our efforts can and will make a difference, and at Marshall, they really do."

The Marshall Individual Award was presented to team members who made a significant contribution to the center's Small Business Office, which works closely with small businesses to match their capabilities with the center's requirements. Individual Award winners for 2009 were:

- Wayne Harmon, contract specialist in the Office of Procurement, who received the "Small Business Procurement Support Person of the Year" award for his support during the acquisition planning of the Marshall Information Technology Services requirement

- David Black, manager of the IT Security Office in the Office of the Chief Information Officer, who was named "Small Business Technical Support Person of the Year" for his support during the acquisition planning of the Marshall Information Technology Services
- David Brock who received the "Small Business Specialist of the Year" award for his dedication and leadership in coordinating and implementing the work of Marshall's Small Business Office
- John McDougle, deputy director of the Office of the Chief Information Officer, who received the award for "Small Business Leadership" for his exemplary commitment, dedication and leadership in promoting the goals and objectives of the center's Small Business Office

Prime and Subcontractor of the Year awards were presented to the following

Huntsville companies:

- SEI Group Inc. was named "Small Business Prime Contractor of the Year" for exemplary support provided to Marshall for the Facility Engineering Design Services contract
- ATK Launch Systems received the "Large Business Prime Contractor of the Year" award for its advocacy and support of the Marshall small business subcontracting programs under the center's Solid Rocket Motor and Ares I First Stage contracts
- Orion Propulsion Inc. was named "Small Business Subcontractor of the Year" for exemplary support provided to The Boeing Company under Marshall's Ares I Upper Stage Production contract
- Pratt & Whitney Rocketdyne received the "Large Business Prime Contractor Excellence"

*See Awards ceremony on page 3*



Todd May, Marshall's special assistant to the director, addresses the audience from the podium at the 2009 Industry & Advocates Award Ceremony.



# Marshall Center hosts first small business technology forum

By Jessica Wallace

On Sept. 23, the Marshall Center's Small Business Innovation Research Program and the Office of Procurement hosted the center's first technology forum.

The Small Business Innovation Research Program provides small businesses opportunities to propose innovative ideas that meet specific federal research and development needs.

During the forum, held at Gray Research Inc. in Huntsville, local businesses demonstrated their capabilities and business contract efforts to prime contractors, Marshall team members, small business liaisons and coordinators. Huntsville companies AI Signal Research Inc., AZ Technology, CFD Research, Orion Propulsion and Plasma Processes participated in the forum.

"This event provided a unique opportunity for collaboration among the attendees for potential technology infusion into NASA programs and projects and potential commercialization of the innovations," said Lynn Garrison, small business innovation research technology infusion manager in the Engineering Directorate. "This fits into the program's specific objectives, which are to stimulate U.S. technological innovation, use small businesses to meet federal research and development needs, and increase private-sector commercialization of innovations derived from federal research and development.

"We hope this forum will become an annual event," Garrison added.

For more information about NASA's Office of Small Business Programs, visit <http://osbp.nasa.gov/>.

*Wallace, an AI Signal Research Inc. employee and the Marshall Star editor, supports the Office of Strategic Analysis & Communications.*



David Brock, small business specialist in the Marshall Center's Office of Procurement, introduces representatives of Huntsville businesses who presented their technical capabilities at the center's small business technology forum.

## Awards ceremony *Continued from page 2*

award for its support of Marshall's subcontracting programs under the center's Space Shuttle Main Engine and Ares I J-2X Liquid Engine contracts

Prime Contractor Subcontractor Excellence awards also were presented to the following companies:

- Davis Strategic Innovations Inc. of Guntersville for support provided to Teledyne Brown Engineering under Marshall's Systems Development and Operations Support contract
- Media Fusion Inc. of Huntsville for support of SAIC Inc. under Marshall's unified NASA Information Technology Services contract
- JD Machine of Ogden, Utah, for support of the ATK Launch Systems under Marshall's Ares I First Stage and Space Shuttle Main Engine contracts

Small Business Advocacy awards were presented to:

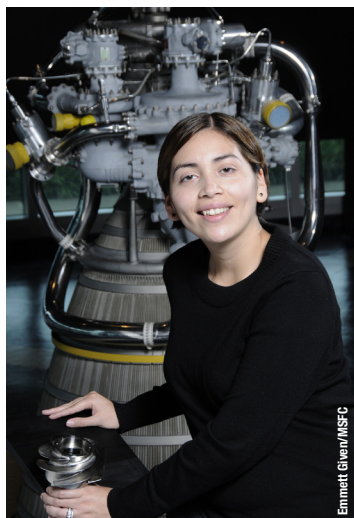
- Ronald Belz, small business liaison for Jacobs Technology, for his support of the NASA Mentor Protégé Program under Marshall's Engineering, Science and Technical Services contract
- Bruce Emerson, senior subcontract manager for SAIC Inc., for his support of the Mentor Protégé Program under the Unified NASA Information Technology Services contract
- Becky Martin, senior manager of supplier diversity for Boeing, for her support of the Mentor Protégé Program under the Ares I Upper Stage Production contract

For more information about NASA's Office of Small Business Programs, visit <http://osbp.nasa.gov/>.

*Wallace, an AI Signal Research Inc. employee and Marshall Star editor, supports the Office of Strategic Analysis & Communications.*

# THE FACE OF MISSION SUCCESS IS: Erika Alvarez

*Turbomachinery Design  
& Development Branch engineer  
in the Propulsion Systems Department*



- **Organization:** Engineering Directorate
- **Joined NASA:** 2004
- **Education:** Bachelor's degree in aerospace engineering, Penn State University, 2003
- **Responsibilities:** I currently lead the Lunar Lander Descent Engine Fuel Turbopump team. I run performance analyses, write test requirements, review test data and drawings, initiate fabrication of components, work with vendors and help the team work technical issues related to the turbopump.
- **What have you enjoyed most during your years at Marshall?** I have enjoyed the wide variety of people I've worked with throughout the design cycle on programs like the space shuttle main engine, the J-2X engine and the lunar lander descent engine. I've enjoyed seeing a design actually tested on a test stand and in some cases actually flown – it really makes you feel like you've achieved something!
- **What is something people would be surprised to find out about you?** I think most people I work with would be surprised to know I like working with kids and would like to be a teacher when I retire. Teachers were a big influence in my life, and helping kids achieve their goals is something I've always wanted to do.

## Impact *Continued from page 1*

to explore the solar system.”

On June 23, LCROSS – still attached to its Centaur upper stage rocket – executed a flyby of the moon and entered into an elongated Earth orbit to position it for impact on the moon's south pole.

On Oct. 9, during the final approach to the moon's surface, LCROSS and the Centaur will separate.

The Centaur will act as the first impactor. The rocket will excavate a crater approximately 66 feet in diameter and almost 13 feet deep. Lunar dust will be lofted above the surface of the moon at a rate of more than 820 feet per second. Some of its heavier material could reach a height of up to 6.2 miles above the lunar surface.

As the plume rises above the target crater's rim, it will be exposed to sunlight. Any water ice, hydrocarbons or organics will vaporize and break down into their basic components.

Following four minutes behind the Centaur upper stage, LCROSS will fly through the debris plume, collecting and relaying data from the plume back to Earth before impacting the lunar surface and creating a second debris plume.

To maximize the creation of a debris plume, the impacts of the Centaur rocket and the LCROSS shepherding spacecraft will need sufficient speed and a high angle of impact. Engineers have estimated that the Centaur and the LCROSS spacecraft will impact the lunar surface at approximately 1.55 miles per second, five times faster than a bullet fired from a .44 Magnum. The projected angle of impact is approximately 80 degrees with respect to the lunar surface.

The moon is the most prominent object in our night sky, yet more is known about Mars. What is known about the moon is gathered by Earth-based telescopes and from the Apollo and small lunar robotic missions. In the 1990s, two of these robotic missions, Clementine and Lunar Prospector, found evidence of possible water ice at the lunar poles.

Live television coverage of the impact will begin at approximately 5:30 a.m. Oct. 9 on NASA TV. Beginning at 9 a.m., the LCROSS impact footage will be replayed on Marshall Centerwide and Desktop TV, and will continue to be shown at the top of each hour until 4 p.m. For more information about LCROSS, please visit [http://www.nasa.gov/mission\\_pages/LCROSS/main](http://www.nasa.gov/mission_pages/LCROSS/main).

## Obituaries

**Mary Lou Quimby Durkee**, 74, of Huntsville died Sept. 4. She retired from the Marshall Center in 1994 as a secretary.

**Alice N. White**, 87, of Huntsville died Sept. 6. She retired from the Marshall Center in 1986 as a program analyst. She is survived by her husband, Dawson E. White.

Mission Assurance Directorate.

"Volunteer coordinators at the Salvation Army told us they had a record 351 families sign up for the program on a single day," said Taylor. "That's amazing – and a great indication of the heartfelt volunteer spirit among Marshall Center team members."

Plenty of opportunities to demonstrate that giving spirit remain, Taylor said.

Community service days – supporting a variety of local charitable organizations – will be held throughout the fall and into the holiday season. For more information, or to sign up, visit <http://cfc.msfc.nasa.gov> or go



to Inside Marshall and click the CFC logo. A complete schedule of bus tours to visit area charities also has been announced (see related story at right). Watch for spotlights on some of these organizations in upcoming issues of the Marshall Star.

Civil service employees are granted an excused absence of up to four hours to participate in CFC community service days. Any use of this excused absence should be coordinated with the employee's supervisor prior to their absence. Marshall Center contractors should consult with their supervisors about their company leave policy.

Across the center, the CFC effort continues to gain steam. Taylor and her team are planning the center's annual CFC rally for 10 a.m. Oct. 27 in Morris Auditorium. Details were pending at press time. For the latest updates, watch [http://inside.msfc.nasa.gov/announcements/cfc\\_info.html](http://inside.msfc.nasa.gov/announcements/cfc_info.html).

The 2009 campaign runs through Dec. 11. The Marshall Center's fundraising goal for 2009 is \$625,000.

*Smith, an employee of AI Signal Research Inc., supports the Office of Strategic Analysis & Communications.*

## ***NASA extends Engineering, Science and Technical Services Contract***

NASA has signed a contract modification with Jacobs Technology Inc. of Tullahoma, Tenn., to exercise the final option of the Engineering, Science and Technical Services Contract at the Marshall Space Flight Center.

The cost-plus-award-and-incentive fee, indefinite-



## **CFC bus tour schedule**

***Marshall team members encouraged to visit Inside Marshall to sign up***

- Huntsville Madison County Rescue Squad: Oct. 14, 9-11 a.m.
- Huntsville Botanical Garden: Oct. 15, 1-3 p.m.
- Land Trust of Huntsville & North Alabama: Oct. 20, 9-11 a.m.
- Huntsville Hospital Foundation Neo Natal Care Unit: Oct. 20, 1-3 p.m.
- Volunteer Center of Huntsville: Oct. 21, 9-11 a.m.
- Huntsville-Madison County Senior Center: Oct. 22, 9-11 a.m.
- Therapy Partners: Oct. 28, 1-3 p.m.
- Huntsville-Madison County Rescue Squad: Nov. 3, 1-3 p.m.
- Huntsville Botanical Garden: Nov. 4, 1-3 p.m.
- Therapy Partners: Nov. 5, 1-3 p.m.
- Huntsville Hospital Foundation Neo Natal Care Unit: Nov. 10, 9-11 a.m.
- Huntsville-Madison County Senior Center: Nov. 17, 9-11 a.m.

Visit [http://inside.msfc.nasa.gov/announcements/cfc\\_info.html](http://inside.msfc.nasa.gov/announcements/cfc_info.html) for updates and to sign up.

delivery, indefinite-quantity contract will conclude Oct. 14, 2010. This final option of \$192.5 million brings the total potential value of the contract, awarded in October 2005, to \$792.5 million.

Under the contract, Jacobs Technology Inc. performs a wide range of engineering, technical, science, propulsion, program management and business services in support of Marshall and NASA Headquarters in Washington. The company will furnish all resources, including management, personnel, equipment and supplies, unless specific exceptions are made by the government.



# Ares Projects team members honored at annual ceremony



The Marshall Space Flight Center's Ares Projects paid tribute to its employees at its annual awards ceremony. The event, held Sept. 25 at Activities Building 4316, was attended by more than 500 Ares team members and associates. At left, team members enjoyed lunch prior to the start of the awards ceremony. Teresa Vanhooser, right, acting manager for Ares Projects, hosted

the event which recognized more than 1,500 team members representing Ares Projects, Marshall's Engineering Directorate and the Safety & Mission Assurance Directorate. In addition to team awards, 54 team members received a "Made It Happen" award for individual accomplishments and their contributions to the Ares Projects.

## Marshall Association awards scholarships



The Marshall Association has awarded three college scholarships to dependents of Marshall Space Flight Center team members. Scholarship winners are, from left, Roshini Sheth, daughter of Dinesh Sheth of the Office of Center Operations; Kevin Naderi, son of Melinda Naderi of the Engineering Directorate and Mahmoud Naderi of the Office of Strategic Analysis & Communications; and Michael Miller, son of Tony Miller of the Engineering Directorate. The scholarships are awarded annually. Eligible applicants must be college-bound children of Marshall Association members. For more information, visit [http://inside.msfc.nasa.gov/er/marshall\\_association.html](http://inside.msfc.nasa.gov/er/marshall_association.html). The next association meeting will be at 11 a.m., Oct. 15, at the Redstone Officers and Civilian Club with guest speaker Mike Slive, commissioner of the Southeastern Conference for college sports. Those planning to attend should contact Thea Baskerville-Brown at [thea.c.baskerville-brown@nasa.gov](mailto:thea.c.baskerville-brown@nasa.gov) by Oct. 9. Lunch is \$13 for members and \$15 for nonmembers.

# Marshall team can help put funds into their children's schools

Marshall Space Flight Center team members can help put more money into their children's schools by taking five minutes to fill out a Federal Impact Aid form.

Federal Impact Aid is an annual program that disperses federal grant money to local school districts financially burdened or impacted by federal populations. These federal populations must live or work on federal property, which includes Marshall Center civil service and contractor employees. The funding is used by the school districts for computers, text books, supplies and additional educators.

Although the forms were sent home with most students Sept. 9, Jeff Kemp of the U.S. Army Garrison's Base Realignment and Closure, or BRAC, Support Team at Redstone Arsenal,

said it's not too late for parents to fill out and return the form to their child's school. BRAC is a process used by the U.S. Department of Defense and Congress to close excess military installations and realign the total asset inventory to save money on operations and maintenance.

Since the announcement of BRAC in 2005, Huntsville, Madison City and Madison County school districts have accepted more than 5,300 new students, and have received approximately \$4.2 million in Federal Impact money.

"With the growing number of students still coming into the area due to BRAC and positive industry growth, and with the Alabama education budget likely to take another cut this year, every penny counts," Kemp said.

Parents who did not receive a Federal Impact Aid form through their child's school can access a form at The Schools Foundation Web site, <http://www.theschoolsfoundation.org/>.

## Classified Ads

To submit a classified ad to the Marshall Star, go to Inside Marshall, to "Employee Resources," and click on "Employee Ads — Submit Ad." Ads are limited to 15 words, including contact numbers. No sales pitches. Deadline for the next issue, Oct. 15, is 4:30 p.m. Thursday, Oct. 8.

### Miscellaneous

Nordic Track C2300 treadmill, \$600. 653-7036

40-inch Frigidaire Professional Series electric range, dual oven, convection, smooth top, \$1,200. 679-4459

Two Auburn vs. Kentucky football tickets. 536-6436 leave message

Flat file cabinet, 24"x36" document storage. 656-2514

Whirlpool/Kenmore side-by-side refrigerator, water and ice in door. 679-9232

20-inch TV with remote, \$50; Graco travel crib, \$20. 684-7936

Hotpoint Electric dryer, must pick up, Gurley area, \$50 obo. 337-9222

Snapper High-vacuum riding mower, 30-inch cut, needs new 12.5 hp engine, \$100. 325-0085

Seagull Artist Mosaic acoustic guitar, Tric case, \$395. 278-0929

Pie-cut Lazy Susans for corner cabinets, two shelves, 32-inches, \$45. 880-6544

Portable display panels with lights, \$350; 7-piece drum set, Fender, \$500. 227-0339

Two Amy Grant concert tickets, BJCC Concert Hall, Nov. 13, tier level, row AA, \$125. 882-8993

White Ibanez guitar RG350, DX locking tremolo system, high output pickups, \$250 obo. 498-3452

### Vehicles

2006 KUBOTA Tractor L3400DT, 4WD, loader, backhoe, 117 hours, \$15,000. 509-2524

2006 25-foot Jayco camper, Jayfeather EXP, 5500 GVWR, sleeps eight, \$12,000. 233-1487

2005 Infiniti G35 sedan, six speed, 100k mile warranty, 34k miles, \$20,700. 426-1822

2004 Honda Shadow Sabre 1100, 9k miles, \$4,500. 651-0925

2004 R-Vision 33-foot Class-A motor home, workhorse chassis, extended warranty, [www.thewillettfamily.com/rv](http://www.thewillettfamily.com/rv), \$52,000. 883-7021

2001 F350 crew cab, dual-wheel 9-foot flatbed, brush guard, new transmission, 81k miles, \$10,900. 509-2357

John Deere 4030 diesel 85HP tractor, \$9,800. 881-1867

1993 F350 crew cab, 2WD, \$2,500. 723-8877

1982 Ford F-150, 5.8L, beige, auto, A/C, AM/FM/CD, 113k miles, \$1,800 obo. 468-9792

1978 28-foot Holiday Rambler camper trailer, \$1,200 obo. 859-2975 or 651-6454

### Wanted

Adult martial arts sparring pads, medium size preferred. 772-7222

Houses to clean; elderly assistance. 651-4723

Washer and dryer. 468-9377

New or gently used CPAP machine with carrying case. 975-9803 leave message

1970s-1980s rock record albums, Tom Waits, Rolling Stones, Pink Floyd, Van Morrison. 468-8177

Three or more tickets to any Alabama football game this season. 653-5987

Houses/offices to clean, available evenings and weekends, gift certificates available. 777-8595 leave message

Leaf vacuum for reasonable price. 288-6797

### Free

3 gallons of used peanut oil for cooking or biofuel. 651-5847

### Found

Ring, near ladies restroom at Marshall picnic area. 544-1125



## Joyce Tomlin: Friendly, warm service at Marshall



When people entered the lobby of Building 4200 at the Marshall Space Flight Center, Joyce Tomlin made sure everyone received a friendly hello and a warm smile. Tomlin, a receptionist supporting Marshall's Protective Services Office in the Office of Center Operations, joined the office's identification and registration section in April 1987. She became a familiar face at the front desk of 4200. "Customer service was always first and foremost with Joyce," said Becky Hopson, a Marshall security specialist. "She provided much-needed wisdom and brought continuity to an environment that is constantly changing." Tomlin retired from the center Oct. 2, after 22 years of service. "Joyce was a valued asset to us, and we'll all miss her," Hopson said.

## Space shuttle Atlantis being prepared for launch

Space shuttle Atlantis was moved into the Vehicle Assembly Building at the Kennedy Space Center, Fla., on Oct. 6, where preparations are under way for a November launch. After rotation to a vertical position, Atlantis was lifted and lowered onto a mobile launch platform. It will be attached to the external fuel tank and two solid rocket boosters, which have already been secured to the platform. Rollout of the completed shuttle stack to the launch pad is planned for Oct. 13. Liftoff of Atlantis on its STS-129 mission to the International Space Station is targeted for Nov. 12 at 3:04 p.m. CDT.



## MARSHALL STAR

Vol. 50/No. 4

Marshall Space Flight Center, Alabama 35812  
256-544-0030  
<http://www.nasa.gov/centers/marshall>

The Marshall Star is published every Thursday by the Public and Employee Communications Office at the George C. Marshall Space Flight Center, National Aeronautics and Space Administration. Classified ads must be submitted no later than 4:30 p.m. Thursday to the Marshall Public and Employee Communications Office (CS20), Bldg. 4200, Room 102. Submissions should be written legibly and include the originator's name. Send e-mail submissions to: [intercom@msfc.nasa.gov](mailto:intercom@msfc.nasa.gov). The Star does not publish commercial advertising of any kind.

Manager of Public and Employee Communications: Dom Amatore  
Editor: Jessica Wallace

U.S. Government Printing Office 2009-623-044-00019

[www.nasa.gov](http://www.nasa.gov)

PRE-SORT STANDARD  
Postage & Fees PAID  
NASA  
Permit No. 298